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METHODS FOR THE PREVENTION OF SPREAD AND CONTROL
OF THE EUROPEAN CORN BORER

advocated by

The Bureau of Entomology, U. S. Department of Agriculture.

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A summary of the present plans for the prevention of spread and the control of the European corn borer is as follows: The enforcement of the Federal quarantines in cooperation with various States and other agencies, in order, first, to prevent additional infested material from moving from foreign countries into the United States; second, to prevent, so far as may be possible, the interstate movement of infested material from the present areas of infestation within the United States. With the latter purpose in view, Federal Quarantine No. 43 against the European corn borer was declared by the Secretary of Agriculture, effective on and after March 29, 1920. It is administered by the Federal Horticultural Board in co-operation with the Bureau of Entomology. This quarantine as amended November 15, 1921, includes 144 cities and towns in Massachusetts, 3 in Michigan, 12 in New Hampshire, 115 in New York, 42 in Ohio, and 13 in Pennsylvania, and provides that in the case of corn and broom corn, including all parts of the stalk, cut flowers or entire plants of chrysanthemum, aster, cosmos, zinnia, hollyhock, and cut flowers, entire plants of gladiolus and dahlia, except the bulbs thereof without stems, the quarantine and regulations shall apply throughout the year, and in the case of all other products for the period between June 1 and December 31, in New England territory. It further provides that in the case of corn and broom corn (including all parts of the stalk) all sorghums and sudan grass from infested areas in New York, Pennsylvania, Ohio and Michigan, the quarantine and regulations shall apply throughout the year. According to the terms of this quarantine, no restrictions are placed on the interstate movement of clean shelled corn and clean seed of broom corn.

The terms of this quarantine are enforced in the wholesale vegetable and flower markets by inspectors employed by the Bureau of Entomology. An inspector's office is maintained in the center of the wholesale vegetable districts and in the flower markets in the infested areas. Telephone service is provided and inspectors are on duty at these places from 7 a.m. to 6 p.m., and are subject to the call of merchants, forwarding agents and private individuals who may wish to ship quarantined products to points outside of the infested areas. Such inspectors are provided with badges of authority issued by the Bureau of Entomology, and the Federal Horticultural Board, and supplied with the necessary permits authorizing shipments.

The method pursued may be briefly outlined as follows: A commission merchant receives an order for products included in the quarantine, to be

shipped to a point outside the infested area. The products which he wishes to ship were received from some point outside the infested area, but having been received into the infested area, must be covered by a permit authorizing the railroads and express companies to accept them. The person interested notifies the inspector's office by telephone and the inspector immediately proceeds to the place where the products are located, satisfies himself of their origin by inspecting waybill or other documentary evidence presented, and issues the necessary permits. These permits are printed on a durable grade of paper, and bear the facsimile signature of the officer in charge of European corn borer control. They are securely fastened to the package in the presence of the inspector. A force of men, sufficient to the demand, is maintained in the wholesale flower and vegetable markets within the infested area.

In order to facilitate the shipment of goods packed in oat or rye straw, permits are issued to large commercial houses using hay or straw originating outside the quarantine area, upon satisfactory evidence of origin. In the case of individuals or small concerns who make an occasional shipment, it is necessary for our inspectors to issue permits as required.

A constant watch is maintained at railroad, steamship and electric terminals to prevent violations of the quarantine. A similar surveillance is maintained over long-distance trucks departing from the wholesale market districts for points outside the quarantined area.

Inspectors are also stationed on all main, travelled roads at State lines within infested areas during the growing season, for the purpose of stopping and inspecting vehicles to ascertain whether they are carrying products included in Quarantine No. 43. "Warning" posters are displayed at all roadside stands, produce markets, railroad stations, steamship wharves, express offices and other public places throughout the infested area, to caution the public against attempting to transport quarantined products to points outside of the infested area. Copies of Quarantine No. 43 Revised may be obtained free of charge upon application to the Secretary of Agriculture or the Federal Horticultural Board, Washington, D. C.

PENALTY FOR VIOLATION OF PLANT QUARANTINE ACT

The Plant Quarantine Act, August 20, 1912, as amended March 4, 1913, and March 4, 1917, provides - That any person who shall violate any of the provisions of this act, or who shall forge, counterfeit, alter, deface, or destroy any certificate provided for in this act or in the regulations of the Secretary of Agriculture, shall be deemed guilty of a misdemeanor and shall, upon conviction thereof, be punished by a fine not exceeding \$500 or by imprisonment not exceeding one year, or both such fine and imprisonment, in the discretion of the court.

The following summary of control and restrictive measures is taken from the manuscript of a Farmers' Bulletin in preparation at the present time, which it is believed may be published by August 1, 1922, but in order to have this information available for extension workers, it has been included in this leaflet.

SUMMARY OF CONTROL AND RESTRICTIVE MEASURES

To control the European corn borer, the following practices are recommended:

- (1) Burn, or otherwise destroy, before May 1 of each year, all corn stalks, corn cobs, corn stubble, vegetable, field and flower crop remnants, weeds, and large stemmed grasses of the previous year.
- (2) Keep cultivated fields, fence rows, field borders, roadsides, etc., free from large weeds or large stemmed grasses.
- (3) Cut corn close to the ground.
- (4) Cut and remove sweet corn fodder from the field as soon as the ears are harvested. Feed direct to livestock or place in silo.
- (5) Cut and remove field corn from the field as soon as the ears are mature. Feed the stalks to livestock as soon as possible and burn or otherwise dispose of the uneaten parts before May 1 following. Shred or cut the fodder to increase its consumption.
- (6) Plow under thoroughly, in the fall, all infested corn stalks, corn stubble, other crop remnants, weeds and similar material which it is impractical to destroy in any other manner. When necessary to adopt this practice an attempt should be made to plow under all of the material to a depth of at least 6 inches.
- (7) Plant small areas of early sweet corn to act as a trap crop, adjacent to fields intended for field corn or late sweet corn. Feed, or otherwise destroy, this early sweet corn, as soon as the ears are harvested, or preferably just before that period, if the grower is willing to sacrifice the ears. Such plantings, where not destroyed at the proper time, constitute a menace to later corn.
- (8) Limit the size of corn fields to areas that can be kept free of weeds.
- (9) Do not plant corn within 50 feet of beets, beans, celery, spinach, rhubarb, or flowering plants intended for sale.
- (10) Do not throw the uneaten parts of corn stalks used as feed or bedding into the manure pile unless this material is worked into piles containing enough fresh horse manure to produce heating.

- (11) Do not transport outside of the infested area, any of the plants, or plant products, listed in Federal Quarantine No. 43.
- (12) Do not transport any living stages of the European corn borer outside of the infested areas.
- (13) Do not place in swill container any sweet corn ears or portions thereof or discarded portions of celery, beets, beans, rhubarb and spinach when this material is suspected of containing the borer.
- (14) Do not dump cornstalks, or other plant refuse from the vegetable and flower garden on public dumps nor on the edge or flood level of brooks, rivers and other bodies of water.
- (15) Do not attempt to circumvent the quarantine regulations. The penalty is severe.
- (16) Do not mix products grown within the infested area with those grown outside the infested area.
- (17) Do not label packages containing flowers or other products with misleading statements of contents.
- (18) Do not pack produce in boxes or other containers until all old tags and permits have been removed.
- (19) Do not feel angry if products are confiscated at border lines for violation of quarantine regulations, such action is the most lenient that may be taken under the law.

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